

SEQUENCE LISTING

<110> Shimkets, Richard
Lichenstein, Henri
Vernet, Corine
Fernandes, Elma

<120> NOVEL POLYPEPTIDES AND NUCLEIC ACIDS ENCODING SAME

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<140> 09/715,417

<141> 2000-11-16

<150> 60/166,336

<151> 1999-11-19

<150> 60/167,785

<151> 1999-11-29

<150> 60/187,844

<151> 2000-03-08

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<170> PatentIn Ver. 2.1

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<212> DNA

<213> Homo sapiens

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<212> PRT

<213> Homo sapiens

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 Met Ala Lys Pro Pro Gly Ser Leu Ala Arg Ser Ser Ser Leu Cys Arg
 35 40 45
 Ser Arg Arg Ser Ile Val Pro Ser Ser Pro Gln Pro Gln Arg Ala Gln
 50 55 60
 Leu Ala Pro His Ala Pro His Pro Ser His Pro Arg His Pro His His
 65 70 75 80
 Pro Gln His Thr Pro His Ser Leu Pro Ser Pro Asp Pro Asp Ile Leu
 85 90 95
 Ser Val Ser Ser Cys Pro Ala Leu Tyr Arg Asn Glu Glu Glu Glu Glu
 100 105 110
 Ala Ile Tyr Phe Ser Ala Glu Lys Gln Cys Met Ile Ile Val Thr Ser
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<210> 4
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<212> PRT
<213> Homo sapiens

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Leu Cys Glu Thr Gly Trp Thr Gly Pro Ser Cys Asp Thr Gln Ala Val
      35              40              45

Leu Ser Ala Val Cys Thr Pro Pro Cys Ser Ala His Ala Thr Cys Lys
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Glu Asn Asn Thr Cys Glu Cys Asn Leu Asp Tyr Glu Gly Asp Gly Ile
      65              70              75              80

Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp Asn Gly Gly Cys Ala
      85              90              95

Lys Val Ala Arg Cys Ser Gln Lys Gly Thr Lys Val Ser Cys Ser Cys
      100             105             110

Gln Lys Gly Tyr Lys Gly Asp Gly His Ser Cys Thr Glu Ile Asp Pro
      115             120             125

Cys Ala Asp Gly Leu Asn Gly Gly Cys His Glu His Ala Thr Cys Lys
      130             135             140

Met Thr Gly Pro Gly Lys His Lys Cys Glu Cys Lys Ser His Tyr Val
      145             150             155             160

Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu Pro Ile Asp Arg Cys
      165             170             175

Leu Gln Asp Asn Gly Gln Cys His Ala Asp Ala Lys Cys Ala Asp Leu
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His Phe Gln Asp Thr Thr Val Gly Val Phe His Leu Arg Ser Pro Leu
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Gly Gln Tyr Lys Leu Thr Phe Asp Lys Ala Arg Glu Ala Cys Ala Asn

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 35 40 45
 Leu Ser Ala Val Cys Thr Pro Pro Cys Ser Ala His Ala Thr Cys Lys
 50 55 60
 Glu Asn Asn Thr Cys Glu Cys Asn Leu Asp Tyr Glu Gly Asp Gly Ile
 65 70 75 80
 Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp Asn Gly Gly Cys Ala
 85 90 95
 Lys Val Ala Arg Cys Ser Gln Lys Gly Thr Lys Val Ser Cys Ser Cys
 100 105 110
 Gln Lys Gly Tyr Lys Gly Asp Gly His Ser Cys Thr Glu Ile Asp Pro
 115 120 125
 Cys Ala Asp Gly Leu Asn Gly Gly Cys His Glu His Ala Thr Cys Lys
 130 135 140
 Met Thr Gly Pro Gly Lys His Lys Cys Glu Cys Lys Ser His Tyr Val
 145 150 155 160
 Gly Asp Gly Leu Asn Cys Glu Pro Glu Gln Leu Pro Ile Asp Arg Cys
 165 170 175
 Leu Gln Asp Asn Gly Gln Cys His Ala Asp Ala Lys Cys Val Asp Leu
 180 185 190
 His Phe Gln Asp Thr Thr Val Gly Val Phe His Leu Arg Ser Pro Leu
 195 200 205
 Gly Gln Tyr Lys Leu Thr Phe Asp Lys Ala Arg Glu Ala Cys Ala Asn
 210 215 220
 Glu Ala Ala Thr Met Ala Thr Tyr Asn Gln Leu Ser Tyr Ala Gln Lys
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<210> 7

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 <212> DNA
 <213> Homo sapiens

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 <213> Homo sapiens

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 35 40 45
 Gln Arg Gly Ala Ala Val Arg Val Cys Arg Gly Arg Gly Arg Ala Gly
 50 55 60
 Gly Ala Gly Arg Arg Asp Gly Arg Ala Ala Leu Gly Gly Pro Thr Ala
 65 70 75 80

Ala Cys Ser Thr Ala Trp Ser Thr Trp Lys Pro Thr Trp Thr Gly Cys
85 90 95

Val Pro Ser Ser Thr Pro Ser Ala Ala Thr Thr Ser Ser Ser Thr Ala
100 105 110

Gln Ala Arg Trp Ser Ser Ala Arg Ile Thr Ala Pro Cys Glu His Leu
115 120 125

Leu Pro Asn Gly Ala Val Gly Pro Gln Ala Asp Cys Arg Pro Pro Arg
130 135 140

Gly Phe Ser Leu Leu His Arg Pro Cys Gln Val His Phe Ser Thr Val
145 150 155 160

Tyr Leu Pro Gly His His Ala Ala Arg Gly Thr Glu Pro Thr Ser Thr
165 170 175

Ser Phe Pro Arg Trp Thr Ser Leu Ser Ile Met Gly Ser Trp Pro Ser
180 185 190

Thr Trp Thr Thr Thr Gln Arg Phe Trp Thr Ser Pro Thr Cys Leu Thr
195 200 205

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Ser
225

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<213> Homo sapiens

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<213> Homo sapiens

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35 40 45
Ser Asn Val His Asn Leu Asn Ser Val Lys Glu Ser Pro His Glu Arg
50 55 60
Met His Arg His Ile Glu Leu Ala Trp Ala Phe Ser Thr Val Ile Gly
65 70 75 80
Thr Leu Leu Phe Leu Ala Glu Val Val Leu Leu Cys Trp Val Lys Phe
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Leu Pro Leu Lys Lys Gln Pro Gly Gln Pro Arg Pro Thr Ser Lys Pro
100 105 110
Pro Ala Ser Gly Ala Ala Ala Asn Val Ser Thr Ser Gly Ile Thr Pro
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Gly Gln Ala Ala Ala Ile Ala Ser Thr Thr Ile Met Val Pro Phe Gly
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Leu Ile Phe Ile Val Phe Ala Val His Phe Tyr Arg Ser Leu Val Ser
145 150 155 160
His Lys Thr Asp Arg Gln Phe Gln Glu Leu Asn Glu Leu Ala Glu Phe
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Pro Gly Ser His Tyr Ala
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<210> 11
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<212> DNA
<213> Homo sapiens

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<210> 12

<211> 669

<212> PRT

<213> Homo sapiens

<400> 12

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35 40 45

Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp

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Val Leu Arg Tyr His Val Val Ala Cys His Gln Leu Leu Leu Glu Asn 85 90 95		
Leu Lys Leu Ile Ser Asn Ala Thr Ser Leu Gln Gly Glu Pro Ile Val 100 105 110		
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Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr 165 170 175		
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Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg 225 230 235 240		
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 485 490 495
 Glu Gly Asp Gly Ile Thr Cys Thr Val Val Asp Phe Cys Lys Gln Asp
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 <213> Homo sapiens

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 <211> 381
 <212> PRT
 <213> Homo sapiens

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 35 40 45
 Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp
 50 55 60
 Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln
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 <212> DNA
 <213> Homo sapiens

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 <212> PRT
 <213> Homo sapiens

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 130 135 140
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 145 150 155 160
 Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr
 165 170 175
 Ile Lys Phe Ser Asn Leu Ile Gln Asp Ser Gly Leu Leu Ser Val Ile
 180 185 190
 Thr Asp Pro Ile His Thr Pro Val Thr Leu Phe Trp Pro Thr Asp Gln
 195 200 205
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 210 215 220
 Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg
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 Ile Gly Asp Leu Phe Leu Asn Gly Gln Thr Cys Arg Ile Val Gln Arg
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625

630

635

640

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<400> 17

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<210> 18
 <211> 545
 <212> PRT
 <213> Homo sapiens

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<400> 18
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Ser Leu His Ser Ile Ile Leu Thr Thr Lys Leu Thr Ser Gln Ser Leu
      20             25             30

Gly Gly Pro Arg Gly Val Glu Glu Arg Met Glu Asp Arg Arg Ala Lys
      35             40             45

Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp
      50             55             60

Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln
      65             70             75             80

Val Leu Arg Tyr His Val Val Ala Cys His Gln Leu Leu Leu Glu Asn
      85             90             95

Leu Lys Leu Ile Ser Asn Ala Thr Ser Leu Gln Gly Glu Pro Ile Val
      100            105            110

Ile Ser Val Ser Gln Ser Thr Val Tyr Ile Asn Asn Lys Ala Lys Ile
      115            120            125

Ile Ser Ser Asp Ile Ile Ser Thr Asn Gly Ile Val His Ile Ile Asp
      130            135            140

Lys Leu Leu Ser Pro Lys Asn Leu Leu Ile Thr Pro Lys Asp Asn Ser
      145            150            155            160

Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr
      165            170            175

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Ile Lys Phe Ser Asn Leu Ile Gln Asp Ser Gly Leu Leu Ser Val Ile
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 Thr Asp Pro Ile His Thr Pro Val Thr Leu Phe Trp Pro Thr Asp Gln
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 Ala Leu His Ala Leu Pro Ala Glu Gln Gln Asp Phe Leu Phe Asn Gln
 210 215 220
 Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg
 225 230 235 240
 Asp Ala Lys Val Leu Ala Val Asp Leu Pro Thr Ser Thr Ala Trp Lys
 245 250 255
 Thr Leu Gln Gly Ser Glu Leu Ser Val Lys Cys Gly Ala Gly Arg Asp
 260 265 270
 Ile Gly Asp Leu Phe Leu Asn Gly Gln Thr Cys Arg Ile Val Gln Arg
 275 280 285
 Glu Leu Leu Phe Asp Leu Gly Val Ala Tyr Gly Ile Asp Cys Leu Leu
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 Ile Asp Pro Thr Leu Gly Gly Arg Cys Asp Thr Phe Thr Thr Phe Asp
 305 310 315 320
 Ala Ser Gly Glu Cys Gly Ser Cys Val Asn Thr Pro Ser Cys Pro Arg
 325 330 335
 Trp Ser Lys Pro Lys Gly Val Lys Gln Lys Cys Leu Tyr Asn Leu Pro
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 Phe Lys Arg Asn Leu Glu Gly Cys Arg Glu Arg Cys Ser Leu Val Ile
 355 360 365
 Gln Ile Pro Arg Cys Cys Lys Gly Tyr Phe Gly Arg Asp Cys Gln Gly
 370 375 380
 Glu Gly Ala Ser Ser Pro Leu Ala Thr Leu Lys Val Ser Ala Leu Ile
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 Ser Thr Arg Pro Pro Glu Ser Val Asn Ala Thr Pro Ala Ser Met Gly
 405 410 415
 Arg Arg Val Arg Cys Ala Gly Arg Gly Asp Leu Gly Leu Ile Val Cys
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 Pro Val Ala Ala Gln Thr Thr Asp Ser Ala Met Met Ala Ser Arg Ala
 435 440 445
 Pro Gly Ser Ala Ser Val Lys Arg Gly Gly Gln Ala Pro Arg Val Thr
 450 455 460
 Leu Arg Gln Phe Cys Leu Gln Cys Val Arg Leu Leu Val Leu Leu Met
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Pro Pro Val Arg Arg Thr Thr Arg Val Ser Val Thr Trp Ile Met Lys
485 490 495

Val Thr Glu Ser His Ala Gln Leu Trp Ile Ser Ala Asn Arg Thr Thr
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Gly Ala Val Gln Arg Trp Pro Asp Ala Pro Arg Arg Ala Arg Arg Ser
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Pro Ala Ala Ala Arg Arg Asp Thr Lys Gly Thr Gly Thr Ala Ala Gln
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Arg
545

<210> 19
<211> 1577
<212> DNA
<213> Homo sapiens

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<210> 20
<211> 334
<212> PRT
<213> Homo sapiens

<400> 20
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20	25	30	
Gly Gly Pro Arg Gly Val Glu Glu Arg Met Glu Asp Arg Arg Ala Lys			
35	40	45	
Trp His Ile Ala Ala Lys Asp Ser Cys Leu Trp Leu Lys Pro Ser Asp			
50	55	60	
Leu Leu Leu Gln Val Lys Asp Trp Asp Lys Tyr Gly Leu Met Pro Gln			
65	70	75	80
Val Leu Arg Tyr His Val Val Ala Cys His Gln Leu Leu Leu Glu Asn			
85	90	95	
Leu Lys Leu Ile Ser Asn Ala Thr Ser Leu Gln Gly Glu Pro Ile Val			
100	105	110	
Ile Ser Val Ser Gln Ser Thr Val Tyr Ile Asn Asn Lys Ala Lys Ile			
115	120	125	
Ile Ser Ser Asp Ile Ile Ser Thr Asn Gly Ile Val His Ile Ile Asp			
130	135	140	
Lys Leu Leu Ser Pro Lys Asn Leu Leu Ile Thr Pro Lys Asp Asn Ser			
145	150	155	160
Gly Arg Ile Leu Gln Asn Leu Thr Thr Leu Ala Thr Asn Asn Gly Tyr			
165	170	175	
Ile Lys Phe Ser Asn Leu Ile Gln Asp Ser Gly Leu Leu Ser Val Ile			
180	185	190	
Thr Asp Pro Ile His Thr Pro Val Thr Leu Phe Trp Pro Thr Asp Gln			
195	200	205	
Ala Leu His Ala Leu Pro Ala Glu Gln Gln Asp Phe Leu Phe Asn Gln			
210	215	220	
Asp Asn Lys Asp Lys Leu Lys Glu Tyr Leu Lys Phe His Val Ile Arg			
225	230	235	240
Asp Ala Lys Val Leu Ala Val Asp Leu Pro Thr Ser Thr Ala Trp Lys			
245	250	255	
Thr Leu Gln Gly Ser Glu Leu Ser Val Lys Cys Gly Ala Gly Arg Asp			
260	265	270	
Ile Gly Asp Leu Phe Leu Asn Gly Gln Thr Cys Arg Ile Val Gln Arg			
275	280	285	
Glu Leu Leu Phe Asp Leu Gly Val Ala Tyr Gly Ile Asp Cys Leu Leu			
290	295	300	
Ile Asp Pro Thr Leu Gly Gly Arg Cys Asp Thr Phe Thr Thr Phe Asp			
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<210> 21
<211> 2070
<212> DNA
<213> Homo sapiens

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acaatttata tttatcattt atataattac ataatttaca ttagttttaa gagggggta 360
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<210> 22
<211> 280
<212> PRT
<213> Homo sapiens

<400> 22
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Asp Leu Asp Glu Asp Thr Pro Pro Ile Val Ser Gln Phe Pro Gly Thr

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		35					40					45			
Ser	Arg	Arg	Ser	Ile	Val	Pro	Ser	Ser	Pro	Gln	Pro	Gln	Arg	Ala	Gln
	50					55				60					
Leu	Ala	Pro	His	Ala	Pro	His	Pro	Ser	His	Pro	Arg	His	Pro	His	His
	65				70				75						80
Pro	Gln	His	Thr	Pro	His	Ser	Leu	Pro	Ser	Pro	Asp	Pro	Asp	Ile	Leu
				85				90						95	
Ser	Val	Ser	Ser	Cys	Pro	Ala	Leu	Tyr	Arg	Asn	Glu	Glu	Glu	Glu	Glu
			100					105					110		
Ala	Ile	Tyr	Phe	Ser	Ala	Glu	Lys	Gln	Trp	Glu	Val	Pro	Asp	Thr	Ala
	115						120					125			
Ser	Glu	Cys	Asp	Ser	Leu	Asn	Ser	Ser	Ile	Gly	Arg	Lys	Gln	Ser	Pro
	130					135					140				
Pro	Leu	Ser	Leu	Glu	Ile	Tyr	Gln	Thr	Leu	Ser	Pro	Arg	Lys	Ile	Ser
	145				150					155					160
Arg	Asp	Glu	Val	Ser	Leu	Glu	Asp	Ser	Ser	Arg	Gly	Asp	Ser	Pro	Val
				165					170					175	
Thr	Val	Asp	Val	Ser	Trp	Gly	Ser	Pro	Asp	Cys	Val	Gly	Leu	Thr	Glu
		180						185					190		
Thr	Lys	Ser	Met	Ile	Phe	Ser	Pro	Ala	Ser	Lys	Val	Tyr	Asn	Gly	Ile
		195					200					205			
Leu	Glu	Lys	Ser	Cys	Ser	Met	Asn	Gln	Leu	Ser	Ser	Gly	Ile	Pro	Val
	210					215					220				
Pro	Lys	Pro	Arg	His	Thr	Ser	Cys	Ser	Ser	Ala	Gly	Asn	Asp	Ser	Lys
	225				230					235					240
Pro	Val	Gln	Glu	Ala	Pro	Ser	Val	Ala	Arg	Ile	Ser	Ser	Ile	Pro	His
				245				250						255	
Asp	Leu	Cys	His	Asn	Gly	Glu	Lys	Ser	Lys	Lys	Pro	Ser	Lys	Ile	Lys
		260						265					270		
Ser	Leu	Phe	Lys	Lys	Lys	Ser	Lys								
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<210> 23

<211> 1347

<212> DNA

<213> Homo sapiens

<400> 23

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<210> 24

<211> 182

<212> PRT

<213> Homo sapiens

<400> 24

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      20              25              30

Leu Ser Asn Tyr Ile Lys Phe Arg Asp Cys Val Lys Phe Asp Ile Val
      35              40              45

Gly Tyr Gly Gly Phe Gly Met Pro Leu Thr Lys Leu Gly Gln Glu Glu
      50              55              60

Ala Leu Tyr Gln Ala Leu Lys Asn Val His Pro Asp Leu His Val Tyr
      65              70              75              80

Lys Lys Glu Phe Pro Glu Asp Phe His Leu Ala Lys His Asp Gln Val
      85              90              95

Leu Pro Ile Met Met Tyr Ala Asn Cys Gly Tyr Ser Ile Asn Gly Arg
      100             105             110

Ile Ile Met Cys Phe Asn Lys Gly Ser His Gly Phe Asp Asn Val Leu
      115             120             125

Met Asp Ile Lys Thr Ile Phe Arg Asp Phe Gly Pro Asp Phe Lys Arg
      130             135             140

Asn Arg Leu Ala Glu Pro Phe Asn Ser Ile His Ile Tyr Pro Phe Val

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145 150 155 160

Cys Lys Leu Leu Gly Val Thr Pro Lys Pro Thr Thr Ala Pro Trp Gln
 165 170 175

Ser Pro Arg Lys Cys Ser
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<210> 25
 <211> 1683
 <212> DNA
 <213> Homo sapiens

<400> 25

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cct						1683

<210> 26
 <211> 171
 <212> PRT
 <213> Homo sapiens

<400> 26

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 20 25 30

Asn Ser Ser Phe Ala Asp Cys Glu Lys Gly Met Arg Asn Gly Pro Asp
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 Gly Ile Phe Phe Leu Tyr Leu Gln Gly Asn Lys Ala Ala Ser Ser His
 50 55 60
 Tyr Ser Arg Glu Val Leu Asn Met Arg Val Arg Leu Val Lys Arg Ser
 65 70 75 80
 Leu Val Glu Ser Tyr Thr His Pro Asn Ser Lys Glu Thr Glu Arg Arg
 85 90 95
 Glu Asn Ile Asp Thr Val Leu Asn Trp Phe Thr Lys Glu Glu Phe Asp
 100 105 110
 Phe Val Thr Leu Tyr Tyr Arg Glu Pro Asp Asn Met Gly His Arg Phe
 115 120 125
 Arg Pro Glu Ala Glu Asn Arg Lys Leu Met Ile Gln Gln Ile Asn Arg
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 145 150 155 160
 Thr Ser Ala Ser Ser Ser His Glu Thr Met Gly
 165 170

<210> 27

<211> 2912

<212> DNA

<213> Homo sapiens

<400> 27

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<210> 28

<211> 926

<212> PRT

<213> Homo sapiens

<400> 28

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Val Val Gln Phe Phe Phe Tyr Gln Pro Ile Ser His Gln Trp Arg Gln
      20             25             30

```

```

Thr Asp Phe Phe Pro Cys Thr Val Thr Cys Gly Gly Gly Tyr Gln Leu
      35             40             45

```

```

Asn Ser Ala Glu Cys Val Asp Ile Arg Leu Lys Arg Val Val Pro Asp
      50             55             60

```

```

His Tyr Cys His Tyr Tyr Pro Glu Asn Val Lys Pro Lys Pro Lys Leu
      65             70             75             80

```

```

Lys Glu Cys Ser Met Asp Pro Cys Pro Ser Ser Asp Gly Phe Lys Glu
      85             90             95

```

```

Ile Met Pro Tyr Asp His Phe Gln Pro Leu Pro Arg Trp Glu His Asn
     100             105             110

```

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Pro Trp Thr Ala Cys Ser Val Ser Cys Gly Gly Gly Ile Gln Arg Arg
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Ser Phe Val Cys Val Glu Glu Ser Met His Gly Glu Ile Leu Gln Val

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Cys Asn Leu Phe Asp Cys Pro Lys Trp Ile Ala Met Glu Trp Ser Gln 165 170 175		
Cys Thr Val Thr Cys Gly Arg Gly Leu Arg Tyr Arg Val Val Leu Cys 180 185 190		
Ile Asn His Arg Gly Glu His Val Gly Gly Cys Asn Pro Gln Leu Lys 195 200 205		
Leu His Ile Lys Glu Glu Cys Val Ile Pro Ile Pro Cys Tyr Lys Pro 210 215 220		
Lys Glu Lys Ser Pro Val Glu Ala Lys Leu Pro Trp Leu Lys Gln Ala 225 230 235 240		
Gln Glu Leu Glu Glu Thr Arg Ile Ala Thr Glu Glu Pro Thr Phe Ile 245 250 255		
Pro Glu Pro Trp Ser Ala Cys Ser Thr Thr Cys Gly Pro Gly Val Gln 260 265 270		
Val Arg Glu Val Lys Cys Arg Val Leu Leu Thr Phe Thr Gln Thr Glu 275 280 285		
Thr Glu Leu Pro Glu Glu Glu Cys Glu Gly Pro Lys Leu Pro Thr Glu 290 295 300		
Arg Pro Cys Leu Leu Glu Ala Cys Asp Glu Ser Pro Ala Ser Arg Glu 305 310 315 320		
Leu Asp Ile Pro Leu Pro Glu Asp Ser Glu Thr Thr Tyr Asp Trp Glu 325 330 335		
Tyr Ala Gly Phe Thr Pro Cys Thr Ala Thr Cys Val Gly Gly His Gln 340 345 350		
Glu Ala Ile Ala Val Cys Leu His Ile Gln Thr Gln Gln Thr Val Asn 355 360 365		
Asp Ser Leu Cys Asp Met Val His Arg Pro Pro Ala Met Ser Gln Ala 370 375 380		
Cys Asn Thr Glu Pro Cys Pro Pro Arg Trp His Val Gly Ser Trp Gly 385 390 395 400		
Pro Cys Ser Ala Thr Cys Gly Val Gly Ile Gln Thr Arg Asp Val Tyr 405 410 415		
Cys Leu His Pro Gly Glu Thr Pro Ala Pro Pro Glu Glu Cys Arg Asp 420 425 430		
Glu Lys Pro His Ala Leu Gln Ala Cys Asn Gln Phe Asp Cys Pro Pro 435 440 445		

Gly Trp His Ile Glu Glu Trp Gln Gln Cys Ser Arg Thr Cys Gly Gly
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 Gly Thr Gln Asn Arg Arg Val Thr Cys Arg Gln Leu Leu Thr Asp Gly
 465 470 475 480
 Ser Phe Leu Asn Leu Ser Asp Glu Leu Cys Gln Gly Pro Lys Ala Ser
 485 490 495
 Ser His Lys Ser Cys Ala Arg Thr Asp Cys Pro Pro His Leu Ala Val
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 Gly Asp Trp Ser Lys Cys Ser Val Ser Cys Gly Val Gly Ile Gln Arg
 515 520 525
 Arg Lys Gln Val Cys Gln Arg Leu Ala Ala Lys Gly Arg Arg Ile Pro
 530 535 540
 Leu Ser Glu Met Met Cys Arg Asp Leu Pro Gly Phe Pro Leu Val Arg
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 Ser Cys Gln Met Pro Glu Cys Ser Lys Ile Lys Ser Glu Met Lys Thr
 565 570 575
 Lys Leu Gly Glu Gln Gly Pro Gln Ile Leu Ser Val Gln Arg Val Tyr
 580 585 590
 Ile Gln Thr Arg Glu Glu Lys Arg Ile Asn Leu Thr Ile Gly Ser Arg
 595 600 605
 Ala Tyr Leu Leu Pro Asn Thr Ser Val Ile Ile Lys Cys Pro Val Arg
 610 615 620
 Arg Phe Gln Lys Ser Leu Ile Gln Trp Glu Lys Asp Gly Arg Cys Leu
 625 630 635 640
 Gln Asn Ser Lys Arg Leu Gly Ile Thr Lys Ser Gly Ser Leu Lys Ile
 645 650 655
 His Gly Leu Ala Ala Pro Asp Ile Gly Val Tyr Arg Cys Ile Ala Gly
 660 665 670
 Ser Ala Gln Glu Thr Val Val Leu Lys Leu Ile Gly Thr Asp Asn Arg
 675 680 685
 Leu Ile Ala Arg Pro Ala Leu Arg Glu Pro Met Arg Glu Tyr Pro Gly
 690 695 700
 Met Asp His Ser Glu Ala Asn Ser Leu Gly Val Thr Trp His Lys Met
 705 710 715 720
 Arg Gln Met Trp Asn Asn Lys Asn Asp Leu Tyr Leu Asp Asp Asp His
 725 730 735
 Ile Ser Asn Gln Pro Phe Leu Arg Ala Leu Leu Gly His Cys Ser Asn
 740 745 750

Ser Ala Gly Ser Thr Asn Ser Trp Glu Leu Lys Asn Lys Gln Phe Glu
 755 760 765
 Ala Ala Val Lys Gln Gly Ala Tyr Ser Met Asp Thr Ala Gln Phe Asp
 770 775 780
 Glu Leu Ile Arg Asn Met Ser Gln Leu Met Glu Thr Gly Glu Val Ser
 785 790 795 800
 Asp Asp Leu Ala Ser Gln Leu Ile Tyr Gln Leu Val Ala Glu Leu Ala
 805 810 815
 Lys Ala Gln Pro Thr His Met Gln Trp Arg Gly Ile Gln Glu Glu Thr
 820 825 830
 Pro Pro Ala Ala Gln Leu Arg Gly Glu Thr Gly Ser Val Ser Gln Ser
 835 840 845
 Ser His Ala Lys Asn Ser Gly Lys Leu Thr Phe Lys Pro Lys Gly Pro
 850 855 860
 Val Leu Met Arg Gln Ser Gln Pro Pro Ser Ile Ser Phe Asn Lys Thr
 865 870 875 880
 Ile Asn Ser Arg Ile Gly Asn Thr Val Tyr Ile Thr Lys Arg Thr Glu
 885 890 895
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<210> 29
 <211> 3905
 <212> DNA
 <213> Homo sapiens

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 <222> (1748..1749)
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acnnt						3905

<210> 30
 <211> 883
 <212> PRT
 <213> Homo sapiens

<400> 30

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Lys Asn Gly Met Val Phe Gly Lys Glu Tyr Thr Val Gly Thr Lys Ala
      35           40           45

Val Tyr Ser Cys Ser Glu Gly Tyr His Leu Gln Ala Gly Ala Glu Ala
      50           55           60

Thr Ala Glu Cys Leu Asp Thr Gly Leu Trp Ser Asn Arg Asn Val Pro
      65           70           75           80

Pro Gln Cys Val Pro Val Thr Cys Pro Asp Val Ser Ser Ile Ser Val
      85           90           95

Glu His Gly Arg Trp Arg Leu Ile Phe Glu Thr Gln Tyr Gln Phe Gln
      100          105          110

Ala Gln Leu Met Leu Ile Cys Asp Pro Gly Tyr Tyr Tyr Thr Gly Gln
      115          120          125

Arg Val Ile Arg Cys Gln Ala Asn Gly Lys Trp Ser Leu Gly Asp Ser
      130          135          140

Thr Pro Thr Cys Arg Ile Ile Ser Cys Gly Glu Leu Pro Ile Pro Pro
      145          150          155          160

Asn Gly His Arg Ile Gly Thr Leu Ser Val Tyr Gly Ala Thr Ala Ile
      165          170          175

Phe Ser Cys Asn Ser Gly Tyr Thr Leu Val Gly Ser Arg Val Arg Glu
      180          185          190

Cys Met Ala Asn Gly Leu Trp Ser Gly Ser Glu Val Arg Cys Leu Ala
      195          200          205

Gly His Cys Gly Thr Pro Glu Pro Ile Val Asn Gly His Ile Asn Gly
      210          215          220

Glu Asn Tyr Ser Tyr Arg Gly Ser Val Val Tyr Gln Cys Asn Ala Gly
      225          230          235          240

Phe Arg Leu Ile Gly Met Ser Val Arg Ile Cys Gln Gln Asp His His
      245          250          255

Trp Ser Gly Lys Thr Pro Phe Cys Val Pro Ile Thr Cys Gly His Pro
      260          265          270

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Gly Asn Pro Val Asn Gly Leu Thr Gln Gly Asn Gln Phe Asn Leu Asn
 275 280 285
 Asp Val Val Lys Phe Val Cys Asn Pro Gly Tyr Met Ala Glu Gly Ala
 290 295 300
 Ala Arg Ser Gln Cys Leu Ala Ser Gly Gln Trp Ser Asp Met Leu Pro
 305 310 315 320
 Thr Cys Arg Ile Ile Asn Cys Thr Asp Pro Gly His Gln Glu Asn Ser
 325 330 335
 Val Arg Gln Val His Ala Ser Gly Pro His Arg Phe Ser Phe Gly Thr
 340 345 350
 Thr Val Ser Tyr Arg Cys Thr Thr Ala Ser Thr Ser Trp Ala Thr Pro
 355 360 365
 Val Leu Ser Cys Gln Gly Asp Gly Thr Trp Asp Arg Pro Arg Pro Gln
 370 375 380
 Cys Leu Leu Val Ser Cys Gly His Pro Gly Ser Pro Pro His Ser Gln
 385 390 395 400
 Met Ser Gly Asp Ser Tyr Thr Val Gly Ala Val Val Arg Tyr Ser Cys
 405 410 415
 Ile Gly Lys Arg Thr Leu Val Gly Asn Ser Thr Arg Met Cys Gly Leu
 420 425 430
 Asp Gly His Trp Thr Gly Ser Leu Pro His Cys Ser Gly Thr Ser Val
 435 440 445
 Gly Val Cys Gly Asp Pro Gly Ile Pro Ala His Gly Ile Arg Leu Gly
 450 455 460
 Asp Ser Phe Asp Pro Gly Thr Val Met Arg Phe Ser Cys Glu Ala Gly
 465 470 475 480
 His Val Leu Arg Gly Ser Ser Glu Arg Thr Cys Gln Ala Asn Gly Ser
 485 490 495
 Trp Ser Gly Ser Gln Pro Glu Cys Gly Val Ile Ser Cys Gly Asn Pro
 500 505 510
 Gly Thr Pro Ser Asn Ala Arg Val Val Phe Ser Asp Gly Leu Val Phe
 515 520 525
 Ser Ser Ser Ile Val Tyr Glu Cys Arg Glu Gly Tyr Tyr Ala Thr Gly
 530 535 540
 Leu Leu Ser Arg His Cys Ser Val Asn Gly Thr Trp Thr Gly Ser Asp
 545 550 555 560
 Pro Glu Cys Leu Val Ile Asn Cys Gly Asp Pro Gly Ile Pro Ala Asn
 565 570 575

Gly Leu Arg Leu Gly Asn Asp Phe Arg Tyr Asn Lys Thr Val Thr Tyr
 580 585 590
 Gln Cys Val Pro Gly Tyr Met Met Glu Ser His Arg Val Ser Val Leu
 595 600 605
 Ser Cys Thr Lys Asp Arg Thr Trp Asn Gly Thr Lys Pro Val Cys Lys
 610 615 620
 Ala Leu Met Cys Lys Pro Pro Pro Leu Ile Pro Asn Gly Lys Val Val
 625 630 635 640
 Gly Ser Asp Phe Met Trp Gly Ser Ser Val Thr Tyr Ala Cys Leu Glu
 645 650 655
 Gly Tyr Gln Leu Ser Leu Pro Ala Val Phe Thr Cys Glu Gly Asn Gly
 660 665 670
 Ser Trp Thr Gly Glu Leu Pro Gln Cys Phe Pro Val Phe Cys Gly Asp
 675 680 685
 Pro Gly Val Pro Ser Arg Gly Arg Arg Glu Asp Arg Gly Phe Ser Tyr
 690 695 700
 Arg Ser Ser Val Ser Phe Ser Cys His Pro Pro Leu Val Leu Val Gly
 705 710 715 720
 Ser Pro Arg Arg Phe Cys Gln Ser Asp Gly Thr Trp Ser Gly Thr Gln
 725 730 735
 Pro Ser Cys Ile Asp Pro Thr Leu Thr Thr Cys Ala Asp Pro Gly Val
 740 745 750
 Pro Gln Phe Gly Ile Gln Asn Asn Ser Gln Gly Tyr Gln Val Gly Ser
 755 760 765
 Thr Val Leu Phe Arg Cys Gln Lys Gly Tyr Leu Leu Gln Gly Ser Thr
 770 775 780
 Thr Arg Thr Cys Leu Pro Asn Leu Thr Trp Ser Gly Thr Pro Pro Asp
 785 790 795 800
 Cys Val Pro His His Cys Arg Gln Pro Glu Thr Pro Thr His Ala Asn
 805 810 815
 Val Gly Ala Leu Asp Leu Pro Ser Met Gly Tyr Thr Leu Ile Thr Pro
 820 825 830
 Ala Arg Arg Ala Ser Pro Ser Arg Val Ala Pro Ser Thr Ala Pro Ala
 835 840 845
 Arg Arg Met Ala Ala Gly Gln Ala Ser Arg Pro Ser Ala Trp Gln Arg
 850 855 860
 Ser Gly Pro Val Gly Asp Pro Ser Thr Leu Pro Gly Ser His Arg Ser
 865 870 875 880
 Pro Lys Pro

<210> 31
 <211> 3896
 <212> DNA
 <213> Homo sapiens

<400> 31
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<211> 882

<212> PRT

<213> Homo sapiens

<400> 32

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Ala Ile Pro Leu Cys Gln Ala Leu Ser Cys Gly Leu Pro Glu Ala Pro
20 25 30

Lys Asn Gly Met Val Phe Gly Lys Glu Tyr Thr Val Gly Thr Lys Ala
35 40 45

Val Tyr Ser Cys Ser Glu Gly Tyr His Leu Gln Ala Gly Ala Glu Ala
50 55 60

Thr Ala Glu Cys Leu Asp Thr Gly Leu Trp Ser Asn Arg Asn Val Pro
65 70 75 80

Pro Gln Cys Val Pro Val Thr Cys Pro Asp Val Ser Ser Ile Ser Val
85 90 95

Glu His Gly Arg Trp Arg Leu Ile Phe Glu Thr Gln Tyr Gln Phe Gln
100 105 110

Ala Gln Leu Met Leu Ile Cys Asp Pro Gly Tyr Tyr Tyr Thr Gly Gln
115 120 125

Arg Val Ile Arg Cys Gln Ala Asn Gly Lys Trp Ser Leu Gly Asp Ser
130 135 140

Thr Pro Thr Cys Arg Ile Ile Ser Cys Gly Glu Leu Pro Ile Pro Pro
145 150 155 160

Asn Gly His Arg Ile Gly Thr Leu Ser Val Tyr Gly Ala Thr Ala Ile
165 170 175

Phe Ser Cys Asn Ser Gly Tyr Thr Leu Val Gly Ser Arg Val Arg Glu

180	185	190
Cys Met Ala Asn Gly Leu Trp Ser Gly Ser Glu Val Arg Cys Leu Ala 195 200 205		
Gly His Cys Gly Thr Pro Glu Pro Ile Val Asn Gly His Ile Asn Gly 210 215 220		
Glu Asn Tyr Ser Tyr Arg Gly Ser Val Val Tyr Gln Cys Asn Ala Gly 225 230 235 240		
Phe Arg Leu Ile Gly Met Ser Val Arg Ile Cys Gln Gln Asp His His 245 250 255		
Trp Ser Gly Lys Thr Pro Phe Cys Val Pro Ile Thr Cys Gly His Pro 260 265 270		
Gly Asn Pro Val Asn Gly Leu Thr Gln Gly Asn Gln Phe Asn Leu Asn 275 280 285		
Asp Val Val Lys Phe Val Cys Asn Pro Gly Tyr Met Ala Glu Gly Ala 290 295 300		
Ala Arg Ser Gln Cys Leu Ala Ser Gly Gln Trp Ser Asp Met Leu Pro 305 310 315 320		
Thr Cys Arg Ile Ile Asn Cys Thr Asp Pro Gly His Gln Glu Asn Ser 325 330 335		
Val Arg Gln Val His Ala Ser Gly Pro His Arg Phe Ser Phe Gly Thr 340 345 350		
Thr Val Ser Tyr Arg Cys Asn His Gly Phe Tyr Leu Leu Gly Thr Pro 355 360 365		
Val Leu Ser Cys Gln Gly Asp Gly Thr Trp Asp Arg Pro Arg Pro Gln 370 375 380		
Cys Leu Leu Val Ser Cys Gly His Pro Gly Ser Pro Pro His Ser Gln 385 390 395 400		
Met Ser Gly Asp Ser Tyr Thr Val Gly Ala Val Val Arg Tyr Ser Cys 405 410 415		
Ile Gly Lys Arg Thr Leu Val Gly Asn Ser Thr Arg Met Cys Gly Leu 420 425 430		
Asp Gly His Trp Thr Gly Ser Leu Pro His Cys Ser Gly Thr Ser Val 435 440 445		
Gly Val Cys Gly Asp Pro Gly Ile Pro Ala His Gly Ile Arg Leu Gly 450 455 460		
Asp Ser Phe Asp Pro Gly Thr Val Met Arg Phe Ser Cys Glu Ala Gly 465 470 475 480		
His Val Leu Arg Gly Ser Ser Glu Arg Thr Cys Gln Ala Asn Gly Ser 485 490 495		

Trp Ser Gly Ser Gln Pro Glu Cys Gly Val Ile Ser Cys Gly Asn Pro
 500 505 510
 Gly Thr Pro Ser Asn Ala Arg Val Val Phe Ser Asp Gly Leu Val Phe
 515 520 525
 Ser Ser Ser Ile Val Tyr Glu Cys Arg Glu Gly Tyr Tyr Ala Thr Gly
 530 535 540
 Leu Leu Ser Arg His Cys Ser Val Asn Gly Thr Trp Thr Gly Ser Asp
 545 550 555 560
 Pro Glu Cys Leu Val Ile Asn Cys Gly Asp Pro Gly Ile Pro Ala Asn
 565 570 575
 Gly Leu Arg Leu Gly Asn Asp Phe Arg Tyr Asn Lys Thr Val Thr Tyr
 580 585 590
 Gln Cys Val Pro Gly Tyr Met Met Glu Ser His Arg Val Ser Val Leu
 595 600 605
 Ser Cys Thr Lys Asp Arg Thr Trp Asn Gly Thr Lys Pro Val Cys Lys
 610 615 620
 Ala Leu Met Cys Lys Pro Pro Pro Leu Ile Pro Asn Gly Lys Val Val
 625 630 635 640
 Gly Ser Asp Phe Met Trp Gly Ser Ser Val Thr Tyr Ala Cys Leu Glu
 645 650 655
 Gly Tyr Gln Leu Ser Leu Pro Ala Val Phe Thr Cys Glu Gly Asn Gly
 660 665 670
 Ser Trp Thr Gly Glu Leu Pro Gln Cys Phe Pro Val Phe Cys Gly Asp
 675 680 685
 Pro Gly Val Pro Ser Arg Gly Arg Arg Glu Asp Arg Gly Phe Ser Tyr
 690 695 700
 Arg Ser Ser Val Ser Phe Ser Cys His Pro Pro Leu Val Leu Val Gly
 705 710 715 720
 Ser Pro Arg Arg Phe Cys Gln Ser Asp Gly Thr Trp Ser Gly Thr Gln
 725 730 735
 Pro Ser Cys Ile Asp Pro Thr Leu Thr Thr Cys Ala Asp Pro Gly Val
 740 745 750
 Pro Gln Phe Gly Ile Gln Asn Asn Ser Gln Gly Tyr Gln Val Gly Ser
 755 760 765
 Thr Val Leu Phe Arg Cys Gln Lys Gly Tyr Leu Leu Gln Gly Ser Thr
 770 775 780
 Thr Arg Thr Cys Leu Pro Asn Leu Thr Trp Ser Gly Thr Pro Pro Asp
 785 790 795 800

Cys	Val	Pro	His	His	Cys	Arg	Gln	Pro	Glu	Thr	Pro	Thr	His	Ala	Asn
				805					810					815	
Val	Gly	Ala	Leu	Asp	Leu	Pro	Ser	Met	Gly	Tyr	Thr	Leu	Ile	Thr	Pro
			820					825					830		
Ala	Arg	Arg	Ala	Ser	Pro	Ser	Arg	Val	Ala	Pro	Ser	Thr	Ala	Pro	Ala
			835				840					845			
Arg	Arg	Met	Ala	Ala	Gly	Gln	Ala	Ser	Arg	Pro	Ser	Ala	Trp	Arg	Ser
		850				855					860				
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Lys Pro

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<220>
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 <222> (2)
 <223> Wherein Xaa is any two amino acids as set forth
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<220>
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 <222> (3)
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<220>
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<400> 33
 Xaa Xaa Xaa
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<210> 34
 <211> 7
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<222> (4)

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<210> 35

<211> 8

<212> PRT

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<220>

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<223> Description of Artificial Sequence: consensus

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<400> 35

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5

<210> 36

<211> 13

<212> PRT

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<223> Wherein Xaa is any 3 or 4 amino acids as set forth
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<223> Wherein Xaa is Phe or Tyr or Trp

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<210> 37
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<400> 37
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<210> 38
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